

ABSTRACT OF THE DISCLOSURE

A solid immersion lens 1 comprises a spherical portion 2 and a bottom surface portion 3. The bottom surface portion 3 is attached in close contact with a substrate 10 of a semiconductor device to be an observed object. The bottom surface portion 3 of this solid immersion lens 1 is formed in a cylindrical shape. Thereby, a solid immersion lens which can be easily separated from the observed object after an observation and can, during an observation, allow a light flux with a high NA to pass and a microscope using the same can be obtained.